

### **THE CLAIMS**

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of claims:

1. (Previously Presented) A method for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:  
  
determining by an access point, a protocol associated with a communication signal for said access point;  
  
allocating, based on said determined protocol, a processor within said access point, said processor compatible with said determined protocol; and  
  
processing said communication signal by said allocated processor within said access point.
2. (Previously presented) The method according to claim 1, comprising selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal.
3. (Previously presented) The method according to claim 2, wherein said allocating comprises updating said processor to be capable of said processing of said communication signal.

4. (Previously presented) The method according to claim 3, wherein said updating comprises downloading protocol code compatible with said determined protocol to said processor.

5. (Previously presented) The method according to claim 4, comprising storing said compatible protocol code in a memory.

6. (Previously presented) The method according to claim 5, wherein said downloading comprises retrieving said compatible protocol code from a portion of said memory.

7. (Previously presented) The method according to claim 6, comprising associating said determined protocol code with said portion of said memory.

8. (Previously presented) The method according to claim 1, comprising tuning at least one transceiver device to at least one of a receive and a transmit frequency associated with said communication signal.

9. (Previously presented) The method according to claim 1, wherein said processor is a digital signal processor (DSP).

10. (Previously presented) The method according to claim 1, wherein said protocol is one of an 802.11a, 802.11b, 802.11g and Bluetooth protocol.

11. (Previously Presented) A non-transitory computer-readable medium, having stored thereon, a computer program having at least one code section for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the at least one code section being executable by a computer for causing the computer to perform steps comprising:

determining by an access point, a protocol associated with a communication signal for said access point;

allocating, based on said determined protocol, a processor within said access point, said processor compatible with said determined protocol; and

processing said communication signal by said allocated processor within said access point.

12. (Previously Presented) The non-transitory computer-readable medium according to claim 11, comprising code for selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal.

13. (Previously Presented) The non-transitory computer-readable medium according to claim 12, wherein said allocating comprises code for updating said processor to be capable of said processing of said communication signal.

14. (Previously Presented) The non-transitory computer-readable medium according to claim 13, comprising code for downloading protocol code that is compatible with said determined protocol to said processor.

15. (Previously Presented) The non-transitory computer-readable medium according to claim 14, comprising code for storing said compatible protocol code in a memory.

16. (Previously Presented) The non-transitory computer-readable medium according to claim 15, comprising code for retrieving said compatible protocol code from a portion of said memory.

17. (Previously Presented) The non-transitory computer-readable medium according to claim 16, comprising code for associating said determined protocol code with said portion of said memory.

18. (Previously Presented) The non-transitory computer-readable medium according to claim 11, comprising code for tuning at least one transceiver device to at least one of a receive and a transmit frequency associated with said communication signal.

19. (Previously Presented) The non-transitory computer-readable medium according to claim 11, wherein said processor is a digital signal processor (DSP).

20. (Previously Presented) The non-transitory computer-readable medium according to claim 11, wherein said protocol is one of an 802.11a, an 802.11b, an 802.11g and Bluetooth protocol.

21. (Previously Presented) A system for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the system comprising:

at least one first processor in an access point, said at least one processor enables determining a protocol associated with a communication signal for said access point;

said at least one first processor enables allocating, based on said determined protocol, a second processor within said access point, said second processor compatible with said determined protocol; and

said second processor enables processing said communication signal within said access point.

22. (Previously presented) The system according to claim 21, comprising at least one selector that enables selecting said second processor from a pool of available processors within said access point, for said processing of said communication signal.

23. (Previously presented) The system according to claim 22, wherein said at least one processor includes at least one updating processor that enables updating at least one of said pool of available processors to be capable of said processing of said communication signal.

24. (Previously presented) The system according to claim 23, wherein said updating processor enables downloading protocol code compatible with said determined protocol to said second processor.

25. (Previously presented) The system according to claim 24, comprising a memory for storing said compatible protocol code.

26. (Previously presented) The system according to claim 25, wherein said updating processor enables retrieving said compatible protocol code from a portion of said memory.

27. (Previously presented) The system according to claim 26, wherein said first processor enables associating said determined protocol code with said portion of said memory.

28. (Previously presented) The system according to claim 21, comprising at least one transceiver integrated within said the access point, said transceiver enables tuning to at least one of a receive and a transmit frequency associated with said communication signal.

29. (Previously presented) The system according to claim 28, wherein one or both of said first processor and/or said second processor is a digital signal processor (DSP).

30. (Previously presented) The system according to claim 29, wherein said protocol is one of an 802.11a, an 802.11b, an 802.11g and Bluetooth protocol.

31. (Previously presented) The system according to claim 30, wherein said at least one integrated transceiver utilizes a single protocol stack for processing said communication signal for said 802.11a, 802.11b, 802.11g and Bluetooth protocols.